

CLAIMS

1. A method of annotating an item with electronic data comprising securing a memory tag to the item, the memory tag comprising a memory and a transponder to enable wireless communication with the memory tag, and
5 having an external dimension D, wherein the memory tag is adapted for wireless communication only with a transceiver located within a distance of 10D of the memory tag.
- 10 2. A method according to claim 1 wherein the memory tag is adapted for wireless communication only with a transceiver located within a distance of 5D of the memory tag.
- 15 3. A method according to claim 2 wherein the memory tag is adapted for wireless communication only with a transceiver located within a distance of 3D of the memory tag.
4. A method according to claim 1 wherein it includes securing a plurality of memory tags to the item.
- 20 5. A method according to claim 1 wherein the or each memory tag is an RFID tag in which the transponder includes an antenna coil and all components of the RFID tag, including the antenna coil, are provided on a single semiconductor chip.
- 25 6. A method according to claim 1 wherein the item is a document which comprises one or more sheets of paper.

7. Apparatus for annotating an item with electronic data wherein the apparatus comprises a memory tag which in use is secured to the item, and a transceiver for wireless communication with the memory tag, the memory tag including a memory and a transponder, and having an external dimension D , wherein the memory tag and transceiver are adapted for wireless communication therebetween only when the transceiver is located within a distance of $10D$ of the memory tag.
8. Apparatus according to claim 7 wherein the memory tag and transceiver are adapted for wireless communication therebetween only when the transceiver is located within a distance of $5D$ of the memory tag.
9. Apparatus according to claim 8 wherein the memory tag and transceiver are adapted for wireless communication therebetween only when the transceiver is located within a distance of $3D$ of the memory tag.
10. Apparatus according to claim 7 wherein it includes a plurality of memory tags.
11. Apparatus according to claim 7 wherein the or each memory tag is powered as a result of wireless communication with the transceiver by inductive coupling.
12. Apparatus according to claim 7 wherein the or each memory tag is an RFID tag in which the transponder includes an antenna coil and all components of the RFID tag, including the antenna coil, are provided on a single semiconductor chip.

- 13 Apparatus according to claim 12 wherein the antenna coil has five or
fewer turns located around the periphery of the chip.
- 14 Apparatus according to claim 13 wherein the antenna coil has two or a
5 single turn located around the periphery of the chip.
15. Apparatus according to claim 7 wherein the memory is FRAM or
MRAM.
- 10 16. Apparatus according to claim 7 wherein the memory has a capacity of at
least 0.5Mbits.
- 15 17. An item annotated with electronic data stored on a memory tag secured
to it, wherein the memory tag comprises a memory and a transponder to
enable wireless communication with the memory tag, and has an external
dimension D , wherein the memory tag is adapted for wireless
communication only with a transceiver located within a distance of $10D$
of the memory tag.
- 20 18. An item annotated with electronic data according to the method of
securing a memory tag to the item, the memory tag comprising a memory
and a transponder to enable wireless communication with the memory
tag, and having an external dimension D , wherein the memory tag is
adapted for wireless communication only with a transceiver located
25 within a distance of $10D$ of the memory tag.
19. An item annotated with electronic data using apparatus comprising a
memory tag which in use is secured to the item, and a transceiver for
wireless communication with the memory tag, the memory tag including

a memory and a transponder, and having an external dimension D , wherein the memory tag and transceiver are adapted for wireless communication therebetween only when the transceiver is located within a distance of $10D$ of the memory tag.

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20. A method of annotating an item with electronic data comprising securing an RFID tag to the item, the RFID tag being provided on a single semiconductor chip having an external dimension D and comprising a memory and a transponder having an antenna coil to enable wireless communication with the RFID tag, wherein the RFID tag is adapted for wireless communication only with a transceiver located within a distance of $10D$ of the RFID tag.
21. Apparatus for annotating an item with electronic data wherein the apparatus comprises an RFID tag which in use is secured to the item, and a transceiver for wireless communication with the RFID tag, the RFID tag including a memory and a transponder with an antenna coil, and being provided on a single semiconductor chip having an external dimension D , wherein the RFID tag and transceiver are adapted for wireless communication therebetween only when the transceiver is located within a distance of $10D$ of the RFID tag.
22. An item annotated with electronic data stored on an RFID tag secured to it, wherein the RFID tag comprises a memory and a transponder having an antenna coil to enable wireless communication with the RFID tag, and is provided on a single semiconductor chip which has an external dimension D , and wherein the RFID tag is adapted for wireless communication only with a transceiver located within a distance of $10D$ of the RFID tag.